

**STEM
RESOURCES
BROCHURE**

The resources contained in this brochure are available to colleges and are intended for use at events, open days, STEM fairs etc.

All resources can be booked using the listed contact details for each resource but availability cannot be guaranteed at all times. Certain pieces of equipment do require college staff to be trained in the operation of them and these are listed under those resources in the brochure.

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IMMERSIVE HYBRID REALITY (IHR) VIRTUAL REALITY MOBILE UNIT

iHR Mobile Virtual Reality Unit

6 x available

Available for colleges to use as a training tool, this VR experience simulates the experience of working at heights on top of a wind turbine, exploring the inside of a wind turbine or working on a construction site.

Includes Oculus VR headset, 2 controllers, PC and projector.

Packed in a trolley travel case with all cables and full instructions.

The following colleges/organisations each host a kit which are available to be booked by using the contact details:

Ayrshire College
Jim Armstrong
jim_armstrong@ayrshire.ac.uk
01292-293075

Dundee & Angus College
Megan Sanderson
m.sanderson@dundeeandangus.ac.uk
01382 834853

Dumfries & Galloway College
Billy McRobert
McRobertW@dumgal.ac.uk
01387 734053

North East Scotland College
Kevin Bruce
kbruce@nescol.ac.uk
01346 586127

Fife College
Craig Somerville
craigsomerville@fife.ac.uk
01383 628977

ORE Catapult
Karen Leiper
Karen.Leiper@ore.catapult.org.uk



VIRTUAL WELDING UNIT



Virtual Welding Unit

1 x available

Fronius Virtual Welding is a step towards enhancing the image of welding, with innovative technology. Without needing any prior knowledge, beginners can start learning what welding is all about under true -to-life conditions – without any safety risks, and using an ergonomically shaped torch, typical workpieces and adjustable welding parameters.

Kit is packed in a wheeled flight case and is a 2 person lift due to the weight 52.7kilos and requires a small van or hatchback car to transport.

Hosted by Perth College UHI

To check availability or to book contact
Andy Stibbles at Andrew Stibbles at:

andrew.stibbles.perth@uhi.ac.uk

NOTE: you must have a staff member who has been trained in the operation of the Unit.



STEM ACTIVITIES

This collection of STEM puzzle activities are a great fun way to get your brain thinking about problem solving and are ideal for use at a small or large event and require no consumables or batteries.



Towers of Hanoi

2 x available

The challenge is to move 4 to 6 discs of different sizes across a line of 3 towers without a disc covering a disc smaller than itself. The more discs; the harder the challenge.

Jumping Rats

2 x available

The challenge is to move 3 black rats from the left side of the board and 3 white rats from the right side of the boards in as few moves as possible. Only 1 rat can move at a time and can only leapfrog one rat at a time.



To enquire about booking either of these activities contact ESP at: info@esp-scotland.ac.uk



K'NEX Education

STEM Explorations Vehicle Building set

5 x available

Explore stem concepts while building different vehicle models! using the materials included in this set, primary-school aged children will be engaged and energized as they further their knowledge and understanding of science, technology, engineering and math concepts.

The set includes 130+ parts for a single child or team to build 7 vehicle models with different power sources, including push-power, rubber band power, wind power or a spring motor. Once built, a downloadable booklet guides students through 5 hands-on, inquiry-based experiments on several of the models.

Students will learn about potential & kinetic energy, velocity, acceleration, motion, graphing and more! the experiment guide is aligned to National stem standards and is appropriate for key stage 2/3.



To enquire about booking this activity contact Caroline Hogg, Forth Valley College at: Caroline.Hogg@forthvalley.ac.uk



MTa Learning kits

5 x kits available which cover a number of tasks

24 experiential activities to develop team skills.

Enable students to develop the skills required when working effectively with each other. The components in the kits are engaging, and generate powerful learning experiences.

With these kits you can deliver 24 experiential activities that encourage and support students to explore, understand and develop a wide range of team building skills.

Kits are packed in large kit case with components and instructions.



To enquire about booking this activity contact:

Forth Valley College
 Caroline Hogg
Caroline.Hogg@forthvalley.ac.uk

Borders College
 Dale Clancy
dclancy@borderscollege.ac.uk

Dundee & Angus College
 Steve Swinley
s.swinley@dundeeandangus.ac.uk

West Lothian College
 Gordon Paterson
gpaterson@west-lothian.ac.uk



Institution of Civil Engineers

BRIDGES TO SCHOOLS

Bridges to Schools is a hands-on activity which gives P6/7 pupils the chance to build a 13m long cable stayed bridge. Having assembled the bridge they then walk across it, learning about bridges, teamwork and civil engineering as they go.

The Bridge model is available for school clusters or groups of schools for a visit of 1 week. Schools can book hour long sessions for each group of 20 pupils. Getting the cluster secondary school involved can make this a great transition activity.

To enquire about booking the Bridges to Schools challenge contact Alison Ward at: Alison.ward@ice.org.uk



The Glasgow Science Centre BodyWorks On Tour programme is all about our amazing (baffling and sometimes yucky) bodies and offers an array of exciting workshops, live science shows and interactive exhibits.

Everything is hands-on and designed to fit the needs of learners from primary through to secondary school pupils. These engaging science shows, interactive workshops and amazing exhibits are the perfect complement to the Curriculum for Excellence Science and Health & Wellbeing outcomes.

We'll visit you and deliver a tailored full day set of activities. Plus, there's a bunch of educational resources to enjoy in and out of the classroom!

For advice and bookings please call the GSC on [0141 420 5003](tel:01414205003) or email:

ontour@glasgowsciencecentre.org

BODY WORKS ON TOUR



POWERING THE FUTURE ON TOUR



Glasgow Science Centre's 'Powering the Future On Tour' programme is all about getting to grips with how energy underpins our modern lives.

Through an exciting suite of engaging workshops, live science shows and interactive exhibits you can explore the choices we all face in having energy that is affordable, secure and environmentally sustainable.

The programme is a perfect choice for teachers seeking rich education experiences for their pupils as it seamlessly compliments the Curriculum for Excellence for P4-S3 learners, and the offer together with our expert and enthusiastic team also brings a new dimension to family, community and corporate events.

For advice and bookings please call the GSC on [0141 420 5003](tel:01414205003) or email:

ontour@glasgowsciencecentre.org

ESP Branding Guidelines

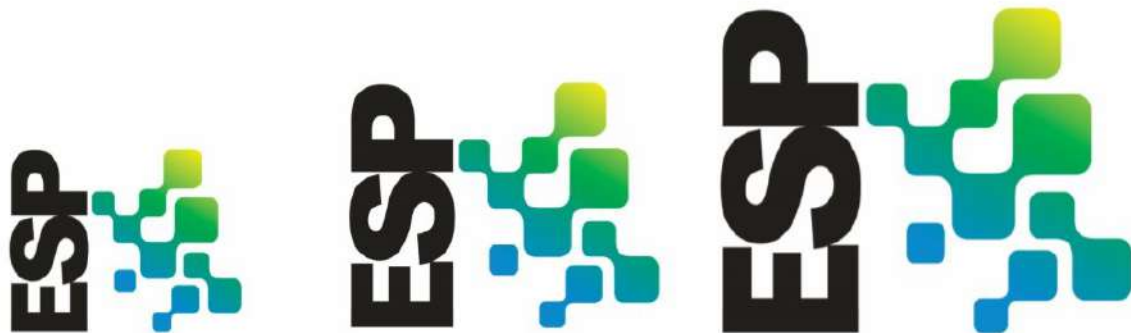
If you are successful in receiving funding from ESP please clearly acknowledge and promote our logo as part of your funding agreement with us. The ESP logo should be included on any promotion related to the aforementioned project including your website, flyers, leaflets, posters and any other promotional or marketing materials you produce. If you do not have a copy of our logo we can provide a copy in all widely used formats Jpeg, PNG etc.

If you produce any press releases to the media or through your website the ESP name must be mentioned as a partner, funder or contributor depending on our role in your project.

If your project has had successful outcomes or achievements please let us know if you think it might make a good case study to share. Visit our website to see examples of some of the case studies we have previously highlighted and to see some of the valuable support ESP has provided to other projects.

How to use the ESP logo

Ensure that the ESP Logo dimensions are proportionally scaled whatever size you use.



How not to use the ESP logo

Do not alter the colours or skew/modify the logo in any way and ensure that sufficient space is given surrounding the logo if placed along with other logos.

Examples below.



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www.linkedin.com/in/espscotland

email: info@esp-scotland.ac.uk visit: www.esp-scotland.ac.uk

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